



Preparation of the 2011 Bioenergy Action Plan

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2011 Bioenergy Action Plan
California Energy Commission
December 14, 2010



Agenda

- **Welcome**
- **Opening Remarks**
 - Commissioner James Boyd
- **Overview of the *Draft 2011 Bioenergy Action Plan***
 - Staff presentation – Garry O'Neill
- **Comments/Questions**
 - Public/stakeholder questions
 - Bioenergy Interagency Working Group panel discussion
- **Next Steps**



Purpose of Workshop

- Present the draft *2011 Bioenergy Action Plan*
- Solicit Public Comment
 - Are there additional challenges not identified.
 - Recommendations for additional actions needed to address challenges.
 - Other comments?



Bioenergy Policy Drivers

- Governor's 2006 Executive Order S-06-06
 - 20% of CA's renewable electricity by 2010 and going forward.
 - 20% of biofuels produced in-state by 2010, 40% by 2020, and 75% by 2050.
- Governor's Executive Orders S-14-08 and S-21-09
 - Renewable Electricity Standard requiring LSE's renewable procurement be 33% of total.
- Low-Carbon Fuel Standard
 - Carbon intensity of transportation fuels reduced by 10% by 2020.
- Federal Renewable Fuel Standard
- AB 32 and Climate Change



Bioenergy Interagency Working Group

- Air Resources Board
- Energy Commission
- Environmental Protection Agency
- Department of Food & Agriculture
- Department of Forestry & Fire Protection
- Department of General Services
- Public Utilities Commission
- Department of Resources Recycling and Recovery
- Water Resources Control Board



The Bioenergy Action Plan

- First published (2006)
 - Contained more than 50 actions.
 - Developed by the Bioenergy Interagency Working Group.
 - Addressed challenges faced by bioenergy.
- Two Progress Reports (2007 & 2009)
 - Showed that progress has been slow, and in some areas, we are losing ground.
- Integrated Energy Policy Report (2009)
 - Recommended updating the Bioenergy Action Plan to reflect current challenges facing bioenergy development in CA.



Process to Develop the *2011 Bioenergy Action Plan*

- Public Workshop – June 3, 2010
 - Identified challenges and recommendations for actions.
- Draft Proposed Actions
 - Collaboration between Energy Commission staff and the Working Group to identify actions that address challenges.
 - Goal was to complete actions by December 2010.
- Public Workshop – December 14, 2010
 - Public comment on proposed actions and recommendations for additional actions.
- Finalize *2011 Bioenergy Action Plan*
 - Working Group will evaluate the *2011 Plan* based on public comments.



Objectives of the *2011 Bioenergy Action Plan*

- Increase bioenergy production at existing facilities.
- Construct new bioenergy facilities.
- Integrate bioenergy facilities with other processes and encourage co-firing.
- Commercialize next generation energy production and pollution control technologies.
- Remove statutory and regulatory hurdles.



Challenges to Bioenergy Development

- Siting, Permitting, and State Policy Challenges
 - Developer compliance costs, policy and regulatory coordination, biogas quality standards, utility interconnection rules.
- Sustainable Feedstock Sourcing and Transportation
 - Sustainability definitions and the high cost to collect, process, and transport biomass feedstock.
- Economics and Financing
 - Contract prices for existing biomass facilities, competition between biofuels and fossil fuels, biomass feedstock market on project financing.
- Statutory and Regulatory Issues
 - Expiration of the Renewable Energy Program, statutory restrictions on conversion technologies, restrictions limiting the beneficial use of landfill gas.
- Funding Needed for Research and Development
 - Expiration of the PIER Program



Select Actions Addressing Siting, Permitting, and State Policy Challenges

- To assist new project developers with guidance to obtain permits, the Working Group will form a subcommittee to develop a comprehensive Web-based portal for permitting guidance, links, and contacts to permitting agencies.
- The CPUC will work with the Energy Commission to review the Rule 21 tariff interconnection processes for bioenergy projects. The CPUC has indicated that Rule 21 issues will be handled in Rulemaking (R) 10-05-004. There may be a need to convene stakeholders to discuss the specific interconnection issues that affect bioenergy projects.



Select Actions Addressing Siting, Permitting, and State Policy Challenges

- To offset the cost for source testing, the ARB, with the Energy Commission, will conduct a stakeholder process to identify "new" biomass feedstocks for conversion technologies and seek funding to support source testing for distributed generators. Source test data would be made available to local air districts.
- The ARB will work with the Energy Commission, Cal Fire, U.S. Forest Service, and local air pollution control districts to evaluate forest health and hazardous fuels reductions programs as a non-traditional and innovative source of PM ERCs in the SCAQMD and other non-attainment areas of California.
- The Energy Commission, ARB, CalRecycle, and CPUC will work with California gas utilities through a public process to address and resolve barriers to introducing landfill gas into the California natural gas pipeline.



Select Actions Addressing Biomass Feedstock Challenges

- The Energy Commission, ARB, and Cal Fire will continue to work with the Interagency Forestry Working Group to assess and define sustainability standards for biomass feedstock sourcing.
- The Energy Commission's PIER Program will commit research dollars and work with the CBC, the CDFA, and industry associations to update and renew an existing Web-based database to provide location, volume, quality, and seasonality of biodegradable waste suitable for codigestion at wastewater treatment plants.
- The Energy Commission will work with CalRecycle to determine if urban derived biomass (the organic fraction of solid waste not derived from fossil fuel) separated from municipal solid waste can be considered biomass for the RPS. If necessary, the Energy Commission will clarify biomass eligibility in the *Renewables Portfolio Standard Eligibility Guidebook*.



Select Actions Addressing Biomass Feedstock Challenges

- The Energy Commission, in partnership with the CalRecycle, and the ARB will provide technical review of proposed legislation that refines or removes the definition of MSW conversion and biomass conversion in statute.
- CalRecycle will participate on technical workgroups convened by the Climate Action Reserve to develop or modify protocols, such as the Organic Waste Digestion Project Protocol, for projects that divert and digest organic waste that otherwise would have gone to solid waste landfills.
- CalRecycle will update guidance documents that outline how CalRecycle regulations are applied to anaerobic digester and the statutory requirements that
- CalRecycle and Local Enforcement agencies have regarding anaerobic digester when solid waste is used as a feedstock.



Select Actions Addressing Biomass Feedstock Challenges

- The Board of Forestry and Fire Protection is developing a Modified Timber Harvest Plan (THP) for Fuels Management, which prescribes standards for harvesting forest fuels that landowners can use to facilitate plan preparation and regulatory compliance. Cal Fire administers this THP process. The Board and Cal Fire are developing the Modified THP with input from other agencies, such as the Department of Fish and Game, to ensure that biomass fuel harvest activities protect the environment and are sustainable.
- The Board of Forestry and Fire Protection and Cal Fire will provide training workshops for Cal Fire staff to implement the 2010 Strategic Fire Plan to assist communities, local agencies and citizen groups such as Fire Safe Councils in reducing wildfire hazards and damages, including hazardous fuel removal. Trainings will improve identification of priority areas for fuels treatments and education about wood biomass treatments.



Select Actions Addressing Economics and Financing Challenges

- The Energy Commission will explore options to ensure that existing biomass facilities continue to operate through the continuation of the Existing Renewable Facilities Program.
- The CPUC will work with the utilities and existing solid-fuel biomass facilities to ensure streamlined, quick, and fair processes through which they may renegotiate expiring contracts.
- The Energy Commission will allocate funding through fiscal year 2011 to support feasibility studies for low-carbon cellulosic ethanol feedstock, including feasibility studies of modifications to existing plants.
- The Energy Commission will fund research to improve conversion efficiencies of cellulosic biofuels derived from straw, corn stover, timber processing residues, and the organic fraction of MSW.



Select Actions Addressing Economics and Financing Challenges

- The CPUC will continue to work on implementing and expanding feed-in tariffs for renewable energy projects through implementation of the SB 32 feed-in tariff and the proposed Renewable Auction Mechanism (RAM) for projects up to 20 MW. **A decision on the RAM is expected in the first quarter of 2011. Implementation of both RAM and the SB 32 feed-in tariff is expected to begin in early 2011.**
- CalRecycle's Recycling Market Development Zones program may provide low interest loans to develop biofuels and renewable electricity using waste materials diverted from landfills.



Select Actions Addressing Biogas Quality Standards

- The Energy Commission, through the Alternative Fuels Investment Plan, will provide funding for research to reduce the cost of biomethane gas clean up to meet gas quality standards for use as a transportation fuel or injection into the natural gas pipeline.
- CPUC will work with the Energy Commission to examine whether additional gas quality standards should be adopted for biogas injected into utility natural gas pipelines. Preliminary joint CPUC/Energy Commission investigation into whether additional quality standards are needed and if a formal CPUC proceeding should be undertaken.
- If it is determined that a CPUC proceeding should be initiated and if it begins in 2011, the CPUC proceeding adopting new quality standards based upon preliminary investigation might be completed by the end of 2012.



Implementing the *2011 Bioenergy Action Plan*

- Implementation – 2011 through 2012
- Working Group meetings
 - The Working Group will meet regularly to assess progress and identify additional agency resources or industry needs.
 - The Energy Commission will measure progress.
- Coordination between stakeholders and state agencies
 - The Working Group will work with industry, environmental community, health organizations, and other members of the public to
 - Implement the *2011 Plan*.
 - Find solutions to challenges not addressed by the *2011 Plan*.¹⁸



Written Comments

- Written comments are due 5:00 p.m. on December 29, 2010.
- Please include the docket number 10-BAP-01 and “*Preparation of the 2011 Bioenergy Action Plan*” in the subject line or first paragraph of your comments.
- Submit comments to:

California Energy Commission

Dockets Office, MS-4

Re: Docket No. 10-BAP-01

1516 Ninth Street

Sacramento, CA 95814-5512



Acknowledgements

Energy Commission Staff

Brian McCollough

Brian Stevens

John Nuffer

Julia Jarass

Julia Moskin

Mark Kootstra

Otto Tang

Rachel Salazar

Rhetta DeMesa

Pam Doughman

Sandra Fromm

Sarah Michael

Susan Brown

Zhiqin Zhang



Acknowledgements

Bioenergy Interagency Working Group

Casey Walsh Cady
Cathy Bleier
Cheryl Lee
Clark Williams
Dave Warner
Eugene Cadenasso
Garrett Liles
Jacques Franco
Jackie Button
John Blue

John Menke
Judith Iklé
Kitty Howard
Mark Jenner
Martha Gildart
Mohsen Nazemi
Ricardo Amon
Rob Williams
Robert Crandall
Stephen Kaffka



Questions or Comments?



Next Steps

- Written Comments due to the Energy Commission by December 29, 2010.
- Bioenergy Interagency Working Group will meet in January to discuss public comments and potential changes to the Plan.
- Release of the final Plan expected in March 2011.